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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,851	06/18/2001	Bogdan C. Maglich	HIENER.ICPC1CP	9955

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EXAMINER

KEITH, JACK W

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/883,851

Applicant(s)

MAGLICH, BOGDAN C.

Examiner

Jack W. Keith

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 8/30/2004 have been fully considered.

With regard to the nonstatutory double patenting rejection it is noted that the terminal disclaimer submitted on 8/30/2004 references the wrong application number 09/778,736 and should reference 09/788,736. Accordingly the double patenting rejection is herein incorporated by reference.

Applicant argues the 112, first paragraph rejection citing that an enabling embodiment has been set forth in the specification.

This argument is not persuasive.

While applicant has set forth a specific value for some of the parameters not all parameters needed to duplicate applicant's tests/experiments are present. While not brought up initially it is noted that no mention of the space between the alpha detector and the target material is disclosed. That is from the specification there is no indication as to whether the area in question is in a vacuum or open to atmosphere. Clearly, one skilled in the art realizes that alpha particles can be stopped by a sheet paper in air. Even in a vacuum (unless a perfect vacuum) some room for stoppage is present as not all particles can be extracted. Thus, applicant's claimed magnification is in question. A new 112, first paragraph rejection flows below.

Even if considered to be enabling for the set of parameters disclosed the claim language is broader than the enabling disclosure. That is the claim language reads on ranges from a maximum (i.e., infinity) to a minimum value. Thus, the claim language is

broader than the enabling disclosure as no range of values is set forth. A new 112, first and second paragraph rejection follows below.

The 112, first rejection regarding how and in what manner said image magnification is realized is herein incorporated by reference.

The 112, first rejection regarding the material analyzed playing a key role in the desired image magnification is withdrawn.

### ***Specification***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure.

As discussed above no mention of the space between the alpha detector and the target material is disclosed by applicant. Thus, unless performed in a vacuum the disclosed example is inoperative as alpha particles are stopped within inches (see Principles of Nuclear Reactor Engineering and Controlled Thermonuclear Reactions).

Thus, there is no adequate description nor enabling disclosure of the parameters of a specific operative embodiments of the invention, including: vacuum or pressure of said space, degree of vacuum or pressure, etc.

As set forth above, the examiner has presented evidence showing that applicant has not progressed his system beyond the point of an unproven theory or concept which still requires an undue amount of experimentation to enable the artisan to make and use the inventive system for its indicated purpose. This view is also considered supported by the failure to set forth a full example of the specific parameters of an operative embodiment. One cannot rely on the skill in the art for the selection of the proper quantitative values, since those in the art do not know what these values would be. See Bank v. Rauland Corp., 64 U.S.P.Q. 93; In re Corneil et al, 145 U.S.P.Q. 697.

Again, there is no evidence to indicate applicant has so succeeded in arriving at an operative system that produces improved image magnification, i.e., that he has progressed his system beyond the point of an unproven theory of concept which still requires an undue amount of experimentation to enable the artisan to make and use the invention for its indicated purpose.

It is thus considered that the examiner (for the reasons set forth above) has set forth a reasonable and sufficient basis for challenging the adequacy of the disclosure. The statute requires the applicant itself to inform, not to direct others to find out for themselves; In re Gardner et al, 166 U.S.P.Q. 138, In re Scarbrough, 182 U.S.P.Q. 298. Note that the disclosure must enable a person skilled in the art to practice the invention without having to design structure not shown to be readily available in the art; In re Hirsch, 131 U.S.P.Q. 198.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The reasons that the inventions as disclosed are not enabling are the same as the reasons set forth in section 3 above as to why the specification is objected to and the reasons set forth in section 3 above are accordingly incorporated herein.

6. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a specific parameter of  $L_1$  and  $L_2$ , does not reasonably provide enablement for any parameter of  $L_1$  and  $L_2$ . Thus, the claims are broader than the enabling disclosure.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the vacuum or

pressure located in the space between the alpha particle detector and the target material.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 5-12 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Sawa et al (5,076,993).

Sawa sets forth a prior art system capable of meeting applicant's claimed inventive concept (see columns 1-2, lines 5-69). The prior art system discloses a known fast neutron activation (FNA) system/technique for the detection of explosives. The system involves the detection of alpha particles (second atomic particle) generated in a tritium (hydrogen isotope) target which produces 14 MeV neutrons (first atomic particle). The alpha particles and neutrons being emitted in opposite directions. A detector located near the tritium target detects the alpha particles. The corresponding neutrons are emitted at 180° within a solid angle equal to the solid angle subtended by the alpha detector from the tritium target. This solid angle defines a beam of neutrons that is used to interrogate a sample (e.g., suitcase). A gamma ray (photon) detector is placed near the sample and detects gamma rays (photons) in coincidence with the alpha particles. Gamma rays (photons) produced in the sample by the n,  $\gamma$  reactions.

The time difference between the alpha particle detection and gamma ray detection can provide position of the gamma ray source within the sample (i.e., location of the chemical substance within the sample). A three dimensional image is then provided by a scanning beam.

FNA allows for the concentrations of hydrogen, carbon, oxygen, and nitrogen to be detected and that the relative concentrations of these elements comprises a signature that further helps to identify a particular substance.

Note that the prior art further discloses the gamma ray (photon) detectors as being germanium detectors.

Additionally note that spectral analysis defining the chemical substances is also set forth in the prior art.

With regard to the claim language "adapted to" or "capable of" these clauses are essentially method limitations or statements of intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.



Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

While Sawa does not set forth the claimed relationship between  $L_1$  and  $L_2$  it is well established that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device the claimed device was not patentably distinct from the prior art (see MPEP 2144.04 IV A). Furthermore it appears that such falls within the optimization of ranges (see MPEP 2144.05 II A and B).

11. Claims 1-4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawa et al (5,076,993) as applied to claims 5-12 and 14-17 above, and further in view of the admitted prior art (see specification: page 8, lines 6-7 and 21+; pages 15-16, lines 12-7; and page 17, lines, 1-7).

As set forth above Sawa discloses a prior art system capable of meeting applicant's claimed inventive concept; however, Sawa does not set forth the particulars of the analyzer as claimed. Nor does Sawa set forth the alpha detector as being a scintillation detector.

Applicant within the context of the disclosure (page 8, lines 6-7 and 21+; pages 15-16, lines 12-7; and page 17, lines, 1-7) sets forth that the analyzer, including the filtration and coincidence circuitry and well known in the art (i.e., conventional).

Applicant further sets forth the use of a scintillation detector for detecting alpha particles as being well known in the art.

Clearly, modification of the prior art system of Sawa to have included the known analyzers and detection systems (scintillators), as admitted by applicant as being conventional, would have been obvious to one having ordinary skill in the art at the time the invention was made as such results are in no more than the use of conventionally known techniques/designs within the contraband detection system art.


### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack W. Keith whose telephone number is (703) 306-5752. The examiner can normally be reached on Monday-Thursday 6:30-5 p.m., with Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jack W. Keith  
Primary Examiner  
Art Unit 3641

jwk  
November 2, 2004